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Australian mineral exploration retreats from record high

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Australian and global mineral exploration reached record highs in 2008 but dropped significantly in 2009 as a consequence of the Global Financial Crisis. Australian mineral exploration expenditure fell by 9.7% from a record $2461 million in 2007–08 to $2223 million in 2008–09 according to data from the Australian Bureau of Statistics (ABS). In constant dollar terms this was a fall of 12.4% from the 2007–08 record (figure 1). World-wide mineral exploration fell more sharply. World non-ferrous mineral (including base metals, precious metals, diamonds, uranium but not coal or iron ore) exploration budgets reported by the Metals Economics Group (MEG) fell from a record US$14.4 billion in 2008 to an estimated US$8.4 billion in 2009, a fall of 42%. This directly reflects the impact of the global economic downturn which resulted in reduced demand for most minerals, especially base metals, and consequent substantial price falls for many of those commodities. The fall in exploration in Australia has been less than that experienced globally because demand for Australia's iron ore and coal resources has maintained both high levels of exports and exploration for these commodities.

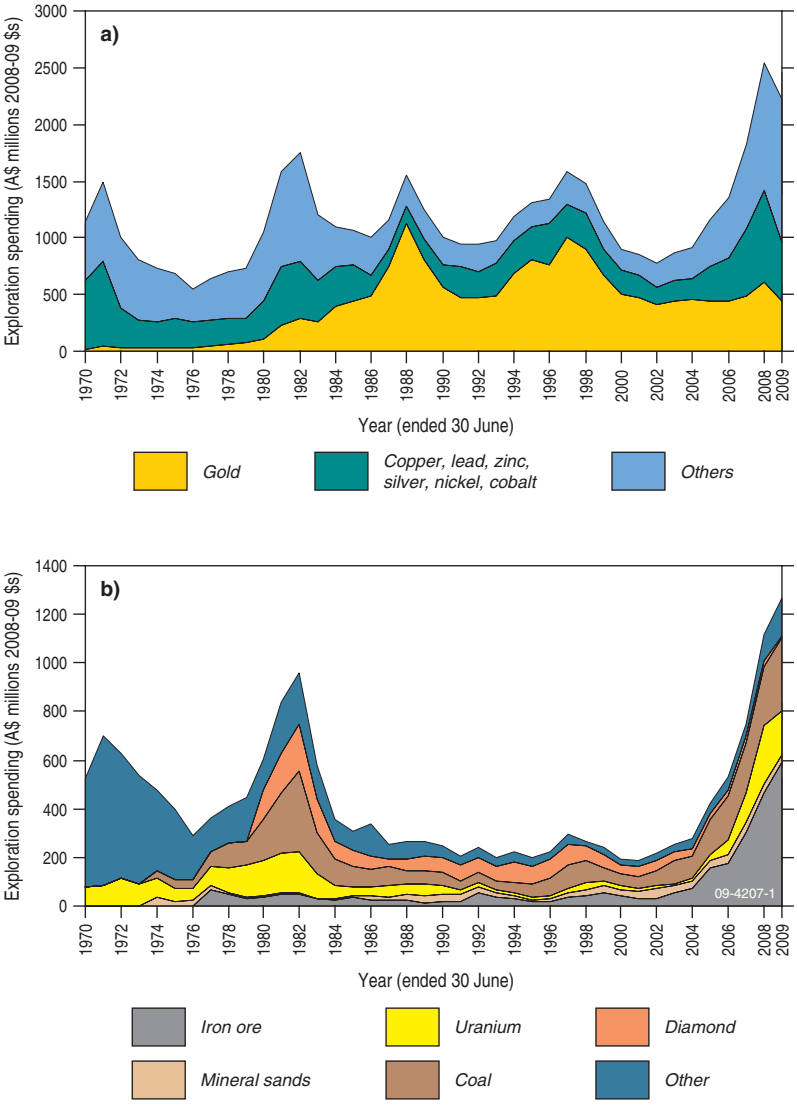

Figure 1. Australian mineral exploration expenditure in constant 2008–09 dollars (Based on Australian Bureau of Statistics data deflated by Consumer Price Index).

Australian mineral exploration dips from peak

Australian mineral exploration (non-petroleum) expenditure in 2008–09 fell by 9.7% to $2223 million from its record high in 2007–08 of $2461.4 million. This was a smaller decline than anticipated as major reductions in expenditure on base metals

($519 million: down 33.8%), gold ($438 million: down 26.1%) and uranium ($185 million: down 20%) were to a large extent offset by spending on exploration for iron ore ($589 million: up 30.9%), coal ($297 million: up 26.6%) and 'Others' which includes commodities such as phosphate, manganese, tungsten and molybdenum ($154 million: up 39.6%).

The Northern Territory was the only Australian jurisdiction which recorded an increase in exploration in 2008–09 with spending rising by 10%. The fall in Western Australia was limited to 1% as iron ore exploration underpinned activity in that jurisdiction. High levels of coal exploration in New South Wales and Queensland limited the overall falls in mineral exploration expenditure in those states to 7.7% and 11.6% respectively. In the other states, with limited or no exploration for iron ore and/or coal, mineral exploration expenditure fell by more than 30%.

World mineral exploration retreats

World non-ferrous mineral exploration budgets (including uranium) in 2009 are estimated to be US$8.4 billion, according to the Canadian-based Metals Economics Group (MEG). This was down some 40 per cent from the US $14.4 billion in 2008. If uranium is excluded, world budgets fell to US$7.7 billion and it was the first reduction after six consecutive years of growth (figure 2). MEG reported that this year's drop represents the largest year-on-year decline in global exploration budgets (in both dollar and percentage terms) since they began their surveys in 1989.

The number of companies in the MEG 2009 survey was down slightly on the number included in the 2008 survey. The 2009 survey is based on the planned non-ferrous exploration spending by 1846 companies (with budgets of at least US$100 000) which MEG estimates covers about 95% of worldwide commercially oriented non-ferrous exploration budgets. MEG reported that, despite the impact of the Global Financial Crisis, the number of junior companies planning active exploration programs fell by only 6% compared with the previous year. The 2009 survey also included a further 319 companies engaged in uranium exploration with exploration budgets of some $664 million. Of these, MEG reports that 152 were exploring solely for uranium.

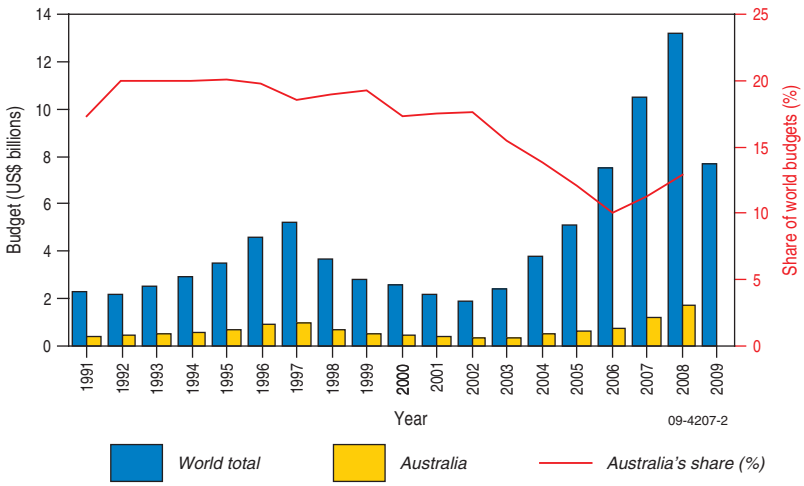

Figure 2. World non-ferrous mineral exploration budgets (excluding uranium) and Australia's estimated share as a percentage (Source: Metals Economics Group).

Australia's share of world non-ferrous mineral exploration has recovered slightly from a low of around 11 to 12% in recent MEG surveys after falling from around 20% in the 1990s (figure 2). Australia has attracted the second highest proportion of non-ferrous mineral exploration budgets after Canada. In addition to the non-ferrous exploration Australia has also experienced high levels of iron ore, coal and uranium exploration over the past five years.

The downturn in mineral exploration in Australia and world-wide is a direct consequence of the Global Financial Crisis which precipitated a fall in metal demand and production cutbacks and closure of a number of base metal mines. The ABS data show that impact of the downturn in mineral exploration expenditure has been greatest in base metals exploration followed by gold.

Focus on brownfields exploration

Both global and Australian data show a continued focus on brownfields exploration at the expense of greenfields in recent years. In their 2008 briefing on

world exploration trends MEG noted that the proportion of world non-ferrous mineral exploration budgets allocated to grassroots exploration has fallen progressively from more than 50% in the mid-1990s to 36% in 2008, with the decline in grassroots exploration taken up by increased advanced-stage and, to a lesser extent, mine-site exploration. MEG attributed this trend to a growth in the number of companies engaged in mining combined with increased efforts to prove up reserves and bring them into production during a time of high commodity prices.

In Australia, the ABS data show growth in brownfields exploration in recent years, with the proportion of exploration expenditure allocated to exploration at existing deposits reaching a peak of 64% in 2006–07. ABS reported that 62% of exploration in 2008–09 was at existing deposits. The growth in brownfields exploration is mirrored by the strong growth in iron ore and coal exploration over the past five years, much of which is focused around known resources.

ABS data for 2008–09 shows that iron ore and coal combined attracted 40% of total Australian mineral exploration spending and gold accounted for a further 20% (figure 3). This differs significantly from the exploration profile in 2003–04 where iron ore and coal accounted for only 18% of Australia's exploration spending while gold accounted for half the total.

The drilling data confirm the continuing dominance of brownfields exploration. The ABS data confirm this focus with 38% of exploration expenditure allocated to the search for new deposits. Exploration drilling fell by 19% to 7.888 million metres in 2008–09. However, greenfields drilling fell by 30.6% to 2.720 million metres whereas brownfields drilling fell by only 11.5% to 6.167 million metres.

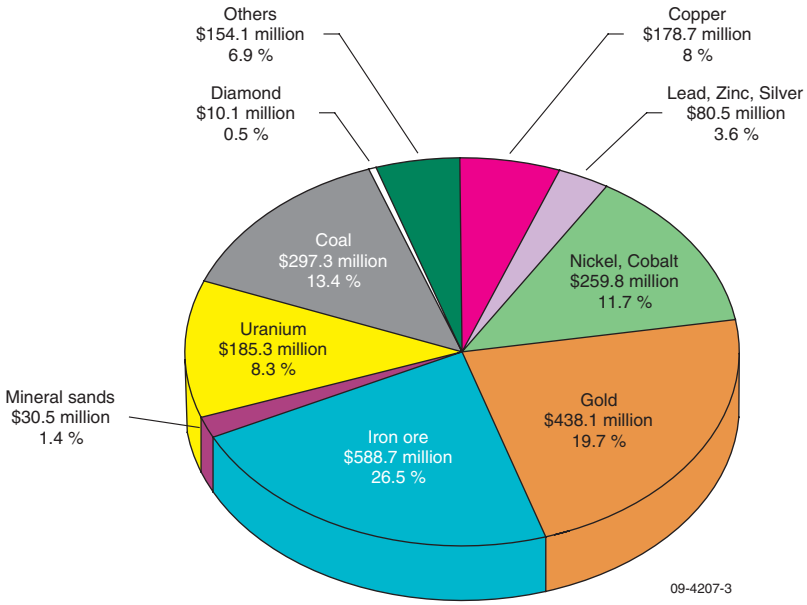

Figure 3. Australian mineral exploration expenditure by commodity (source: ABS).

Exploration outlook

Australia's diverse mineral endowment has helped mitigate the full impact of the adverse world economic conditions on mineral exploration. The collapse in base metal exploration (especially copper and zinc) was offset to a large part by increased iron ore and coal exploration. The overall impact was a reduction in total exploration expenditure of nearly 10% in 2008–09.

Continued strong interest in iron ore and coal has resulted in smaller price falls than for many other commodities. Gold prices have remained very strong and its sustained level above US$1000/oz is likely to encourage increased interest in gold exploration, at least in the short term. The prices of many of the other metals have recovered from the lows reached in late 2008–early 2009 and show further signs of increasing as the world economies recover. Iron ore exploration in particular is likely to remain at high levels in the face of strong demand, especially from China. In contrast base metal exploration generally is unlikely to show strong growth until existing metal stockpiles are reduced and idle production capacity is brought back online as demand increases.

For more information

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